

U.S. Patent Application Serial No. 10/535,422
Response filed December 11, 2008
Reply to OA dated September 15, 2008

AMENDMENTS TO THE CLAIMS:

Please cancel claims 9, 10, 17 and 19 without prejudice or disclaimer, amend claims 1-8, 11-16 and 18, and add new claim 20, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A method for producing a ~~medical device~~ stent expandable in outside diameter for living soft tissue having:

a melting step of producing a ferritic stainless steel tube substantially free of Ni by melting method,

a working step of working said ferritic stainless steel ~~to the shape of a medical device for living soft tissue to obtain a medical device body~~ tube to have a repeating shape on the peripheral surface in expanded form to obtain the stent, and

a nitrogen absorption step of bringing said medical device body into contact with a gas containing nitrogen at a predetermined treatment temperature or more to make said ferritic stainless steel forming said medical device body absorb nitrogen to transform ~~at least part of~~ said ferritic stainless steel tube to austenite.

Claim 2 (Currently amended): The method of production of a ~~medical device for living soft tissue~~ stent as set forth in claim 1, wherein said ferritic stainless steel has as main ingredients Fe in

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an amount of 50 to 90 wt%, Cr and/or Mn in amounts of 10 to 30 wt%, and Mo and/or Ti in amounts of 0 to 10 wt%.

Claim 3 (Currently amended): The method of production of a ~~medical device for living soft tissue~~ a stent as set forth in claim 1, wherein said ferritic stainless steel has as main ingredients Fe in an amount of 65 to 80 wt%, Cr and/or Mn in amounts of 15 to 25 wt%, and Mo and/or Ti in amounts of 0 to 5 wt%.

Claim 4 (Currently amended): The method of production of a ~~medical device for living soft tissue~~ stent as set forth in claim 1, wherein said treatment temperature is in a temperature range of 800 to 1500°C.

Claim 5 (Currently amended): The method of production of a ~~medical device for living soft tissue~~ stent as set forth in claim 1, wherein said treatment temperature is in the temperature range of 1100 to 1300°C.

Claim 6 (Currently amended): The method of production of a ~~medical device for living soft tissue~~ stent as set forth in claim 1, wherein said ferritic stainless steel is made to contain nitrogen in an amount of at least 0.5 wt%.

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Claim 7 (Currently amended): The method of production of a ~~medical device for living soft~~ tissue stent as set forth in claim 1, wherein said ferritic stainless steel is made to contain nitrogen in an amount of at least 0.8 wt%.

Claim 8 (Currently amended): The method of production of a ~~medical device for living soft~~ tissue stent as set forth in claim 1, wherein at least part of said ferritic stainless steel is transformed to austenite to form a two-phase structure of ferrite and austenite.

Claims 9-10 (Canceled).

Claim 11 (Currently amended): The method of production of a ~~medical device for living soft~~ tissue stent as set forth in claim 2, wherein said treatment temperature is in a temperature range of 800 to 1500°C.

Claim 12 (Currently amended): The method of production of a ~~medical device for living soft~~ tissue stent as set forth in claim 2, wherein said treatment temperature is in the temperature range of 1100 to 1300°C.

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Claim 13 (Currently amended): The method of production of a ~~medical device for living soft~~
~~tissue~~ stent as set forth in claim 2, wherein said ferritic stainless steel is made to contain nitrogen in
an amount of at least 0.5 wt%.

Claim 14 (Currently amended): The method of production of a ~~medical device for living soft~~
~~tissue~~ stent as set forth in claim 2, wherein said ferritic stainless steel is made to contain nitrogen in
an amount of at least 0.8 wt%.

Claim 15 (Currently amended): The method of production of a ~~medical device for living soft~~
~~tissue~~ stent as set forth in claim 2, wherein at least part of said ferritic stainless steel is transformed
to austenite to form a two-phase structure of ferrite and austenite.

Claim 16 (Currently amended): The method of production of a ~~medical device for living soft~~
~~tissue~~ stent as set forth in claim 2, wherein all of said ferritic stainless steel is transformed to
austenite.

Claim 17 (Canceled).

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Claim 18 (Currently amended): The method of production of a ~~medical device for living soft tissue~~ stent as set forth in claim 1, wherein the working step comprises forming a metal tube of thickness 50 to 400 μm .

Claim 19 (Canceled).

Claim 20 (New): The method of production of a stent as set forth in claim 1, wherein said ferritic stainless steel tube is coated on its surface with a photosensitive cross-linkable resist and after a master pattern is transferred to said resist followed by dissolving away uncross-linked parts, unnecessary metal parts are removed by etching to obtain the stent having the repeating shape in expanded condition.